

REMARKS

Claims 67-126 are pending in the application.

Claims 67-126 have been rejected.

Claims 67, 72, 76, 79-80, 83, 85, 101, 110, 115 and 119 have been amended.

Unless otherwise specified in the below discussion, Applicants have amended the above-referenced claims in order to provide clarity or to correct informalities in the claims. Applicants further submit that, unless discussed below, these amendments are not intended to narrow the scope of the claims. By these amendments, Applicants do not concede that the cited art is prior to any invention now or previously claimed. Applicants further reserve the right to pursue the original versions of the claims in the future, for example, in a continuing application.

Claim Objections

Claims 79 and 80 have been objected to because neither claim ends in a period. Applicants have amended Claims 79 and 80 to include a period at the end of the claim limitations. In light of these amendments, Applicants respectfully submit that these objections are now moot.

Rejection of Claims under 35 U.S.C. § 112

Claims 72 and 115 stand rejected under 35 U.S.C. §112, second paragraph as purportedly being indefinite for failing to particularly point out and distinctly claim the

subject matter which Applicant regards as the invention. Applicants respectfully traverse this rejection.

The Office Action states that as previously provided, due to the limitation “‘in a memory belonging to one of another MAC device’ it is unclear in terms of the art, what memory belonging to another MAC device is defined as.” Office Action, p.2. Applicants have amended Claims 72 and 115 to clarify that the first queue is provided “in a memory of a second MAC device” or “a memory of a client of the second MAC device.” Applicants respectfully submit that these amendments clarify the location of the memory referred to in the claim. Applicants therefore respectfully request the Examiner’s reconsideration and withdrawal of the rejections to these claims and an indication of the allowability of same.

Rejection of Claims under 35 U.S.C. § 101

Claims 83 and 110-126 stand rejected under 35 U.S.C. §101 because the claimed invention is purportedly directed to non-statutory subject matter. Applicants respectfully traverse this rejection.

The Office Action presents this rejection because “[s]ignals are not patentable under 35 U.S.C. 101.” Applicants have amended the claims to delete the portion of the claimed computer readable medium related to “communications medium conveying signals encoding the instructions.” In light of these amendments, Applicants respectfully submit that the rejections of the Office Action are rendered moot. Applicants therefore

respectfully request the Examiner's reconsideration and withdrawal of the rejections to these claims and an indication of the allowability of same.

By providing the above amendments to Claims 83 and 110-126, Applicants do not concede in the position of the Office Action that claims incorporating "communications media" are necessarily non-statutory under 35 U.S.C. § 101. As is presented in the Patent Office's "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (October 26, 2005) ("Interim Guidelines"), "a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory." See Interim Guidelines, Annex IV (citing *In re Lowry*, 32 F. 3d 1579, 1583-84 (Fed. Cir. 1994)). The Interim Guidelines further state that "from a technological standpoint, a signal encoded with functional descriptive material is similar to a computer-readable memory encoded with functional descriptive material, in that they both create a functional interrelationship with a computer. In other words, a computer is able to execute the encoded functions, regardless of whether the format is a disk or a signal." *Id.*

Such rationale is in accord with the Federal Circuit's decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998). In that decision, the Federal Circuit states that "the question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to--process, machine, manufacture, or composition of matter--but

rather on the essential characteristics of the subject matter, in particular, its practical utility.” *Id.*

The practical utility of communications media encompassing signals that include functional descriptive material is to create the same functional interrelationship with a computer that similar signals embodied in, for example, a CD-ROM would create. Furthermore, “communications media” that contain signals that create a functional interrelationship in a computer are well within the Supreme Court’s stated scope of 35 U.S.C. §101, which is extended to “anything under the Sun that is made by man.” *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980); *See also Diamond v. Diehr*, 450 U.S. 175, 182 (1981). Communications media that comprise signals designed to create a functional interrelationship within a computer are clearly man made and are therefore statutory.

Rejection of Claims under 35 U.S.C. § 102

Claims 67-126 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication No. 2003/0163593 naming Knightly as inventor (“Knightly”). Applicants respectfully traverse this rejection.

Independent Claims 67, 101 and 110, as amended, each contain limitations of substantially the following form:

for each of a plurality of media access control (MAC) devices to which data is to be transmitted over a network, providing a corresponding queue; receiving data, from a local client, destined for a client of a first MAC device of the plurality of MAC devices;

storing at least a portion of the data in a first queue corresponding to the first MAC device;

receiving information indicating a need to change an amount of data being transmitted to the client of the first MAC device; and

selectively transmitting data stored in the first queue to the first MAC device, wherein

a rate at which the selectively transmitting is performed is based at least in part on at least a portion of the information indicating the need to change the amount of data being transmitted to the client of the first MAC device.

See, e.g., Claim 1 (amended). These amendments find support at least in paragraphs 54-57 of the original Application. Applicants respectfully submit that the cited sections of Knightly fail to provide disclosure of one or more of these limitations.

Each of independent Claims 67, 101 and 110, as amended, provides for a queue corresponding to each destination MAC device. Applicants submit that the cited sections of Knightly fail to provide for a queue corresponding to each destination MAC device. As purported support for the claimed queues, the Office Action cites to the following passage:

The final component is the scheduling algorithm that arbitrates service among station and transit traffic. In single-queue mode, the transit path consists of a single FIFO queue referred to as the Primary Transit Queue (PTQ). In this case, the scheduler employs strict priority of transit traffic over station traffic. In dual-queue mode, there are two transit path queues, one for guaranteed Class A traffic (PTQ), and the other for Class B and C traffic, called Secondary Transit Queue (STQ). In this mode, the scheduler always services Class A transit traffic first from PTQ. If this queue is empty, the scheduler employs round-robin service among the transit traffic in STQ and the station traffic until a buffer threshold is reached for STQ. If STQ reaches the buffer threshold, STQ transit traffic is always selected over station traffic to ensure a lossless transit path. In other words, STQ has strict priority over station traffic once the buffer threshold is crossed; otherwise, service is round robin among transit and station traffic.

Knightly, ¶ [0048]. This section of Knightly only provides for two different types of queues: (a) a single-queue transit mode with a Primary Transit Queue for holding transit data, or (b) a dual-queue transit mode with a Primary Transit Queue (PTQ) and a Secondary Transit Queue (STQ) for high and low priority transit data. *Id.* Knightly fails to provide disclosure that these queues correspond specifically to any destination MAC device. Instead, Knightly discloses that these queues purportedly either hold all transit data (in the case of the single-queue transit mode) or prioritized transit data (in the case of the dual-queue transit mode). There are no other queues disclosed in the cited section of Knightly, and especially no queues that are related to corresponding destination MAC devices.

Further, the amended claims provide that the claimed queues are to hold data from a local client destined for a client coupled to a remote MAC device. Knightly's PTQ and STQ are disclosed to store transit traffic, not locally originating traffic. *Id.* In fact, Knightly distinguishes between transit and locally originating traffic in the discussion related to arbitrating service among "station" (locally originating) traffic and "transit" traffic. *Id.*

Applicants further submit that Knightly fails to provide for the claimed "receiving information indicating a need to change an amount of data being transmitted to the client of the first MAC device." Knightly's feedback controls are only disclosed, at best, to be used to throttle an upstream node based upon an aggregate feedback, and not based upon individual MAC clients, as claimed.


For at least these reasons, Applicants submit that the cited sections of Knightly fail to provide disclosure of all the limitations of independent Claims 67, 101 and 110, as amended, and all claims depending therefrom, and that these claims are in condition for allowance. Applicants therefore respectfully request the Examiner's reconsideration and withdrawal of the rejections to these claims and an indication of the allowability of same.

Independent Claim 85, as amended, includes a limitation providing for "a first plurality of queues, wherein each of the first plurality of queues corresponds to one of a plurality of respective network stations." For reasons similar to those discussed above, the cited sections of Knightly fail to provide for a plurality of queues each corresponding to one of a plurality of respective network stations. For at least these reasons, Applicants submit that the cited sections of Knightly fail to provide disclosure of all the limitations of independent Claim 85, as amended, and all claims depending therefrom and that these claims are in condition for allowance. Applicants therefore respectfully request the Examiner's reconsideration and withdrawal of the rejections to these claims and an indication of the allowability of same.

CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance without any further examination and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5090.

Respectfully submitted,



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